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Name of Project: Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Amruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07. 2) Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number – 08 3) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhu and surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in Muthuraya Swamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in Kuvempu Nagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.

Test Reults of Gradation for Wet Mix Macadam (WMM) - Trial 2

IS: 2386 Part I | **Date: 05-08-2021**

Client	Bruhat Bengalore Mahanagara Palike , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019
Sample Condition	Satisfactory
Date of Reciept	05.08.2021
Type of Mix	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of Test	05.08.2021
Total wt of the sample (gms):	11000

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	% Passing	Cumulative % of Passing	Specifcations as per MORTH (Table 400-13)	Remarks
53	0	0.0	0.00	100	100	Satisfactory
45	330	330.0	3.00	97.0	95-100	Satisfactory
22.4	3520	3850.0	35.00	65.0	60-80	Satisfactory
11.2	2255	6105.0	55.50	44.5	40-60	Satisfactory
4.75	1815	7920.0	72.00	28.0	25-40	Satisfactory
2.36	1183	9102.5	82.75	17.3	15-30	Satisfactory
0.6	963	10065.0	91.50	8.5	8-22	Satisfactory
0.075	891	10956.0	99.60	0.4	0-5	Satisfactory

Remarks: Satisfactory

Consultant: Transheight Consultants Pvt. Ltd.	Client : BBMP
Transheight Consultants Pvt. Ltd. Bangalore Authorised Signatory	Authorised Signatory Assistant Executive Engineer Kodigehalli Sub Division BBMP, Bangalore

#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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Test Reults of Gradation for Wet Mix Macadam (WMM) - Trial 2

IS: 2386 Part I

Client	Bruhat Bengalore Mahanagara Palike , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019
Sample Condition	Satisfactory
Date of Reciept	05.08.2021
Type of Mix	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of Test	05.08.2021

Total wt of the sample (gms):			11000	
IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	% Passing	Cumulative % of Passing
53	0	0.0	0.00	100
45	220	220.0	2.00	98.0
22.4	3383	3602.5	32.75	67.3
11.2	2212	5814.6	52.86	47.1
4.75	2105	7920.0	72.00	28.0
2.36	1100	9020.0	82.00	18.0
0.6	1023	10043.0	91.30	8.7
0.075	858	10901.0	99.10	0.9

Remarks: Satisfactory

Consultant: Transheight Consultants Pvt. Ltd.	Client : BBMP
Transheight Consultants Pvt. Ltd. Bangalore Authorised Signatory	Assistant Executive Engineer Kodigehalli Sub Division BBMP, Bangalore

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Test Reults of Gradation for Wet Mix Macadam (WMM) - Trial 2

IS: 2386 Part I

Client	Bruhat Bengalore Mahanagara Palike , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019
Sample Condition	Satisfactory
Date of Reciept	05.08.2021
Type of Mix	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of Test	05.08.2021
Total wt of the sample (gms):	11000

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	% Passing	Cumulative % of Passing
53	0	0.0	0.00	100
45	220	220.0	2.00	98.0
22.4	3383	3602.5	32.75	67.3
11.2	2212	5814.6	52.86	47.1
4.75	2105	7920.0	72.00	28.0
2.36	1100	9020.0	82.00	18.0
0.6	1023	10043.0	91.30	8.7
0.075	858	10901.0	99.10	0.9

Remarks: Satisfactory

Consultant: Transheight Consultants Pvt. Ltd.	Client : BBMP
Transheight Consultants Pvt. Ltd. Bangalore Authorised Signatory	Authorised Signatory Assistant Executive Engineer Kodigehalli Sub Division BBMP, Bangalore

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FIELD DENSITY BY SAND REPLACEMENT METHOD

IS 2720 (Part-28)

Lab I'd	ISO/IEC17025:2005	Date: 05-08-2021	
Client	BBMP		
Consultant	Transheight Consultants Private Limited		
Contractor	B.B Umesh		
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019		
Sample Condition	Satisfactory		
Type of Mix	Coarse Aggregate for WMM (Wet Mix Macadam)		
Date of Test	05-08-2021		
Description of materials	Subgrade		
Lab.MDD (gm/cc)	2.350	Lab.OMC(%)	5.59
Bulk Density of sand	1.385	Sand retained in cone (gm)=W1	848.00

FIELD DENSITY BY SAND REPLACEMENT METHOD

SL.no	Particulars	S-1	S-2
1	Wt of soil from hole (w2) gm:	5346.50	5347.20
2	Wt of sand + cylinder before pouring(gm) (w3)	15000.00	15000.00
3	Wt of sand+ cylinder after pouring (gm)(w4)	11125.71	11140.49
4	Wt of sand in hole (gm)(w5= w3-w4-w1)	3026.29	3011.51
5	Volume of sand in hole (V = W5/Ysand)	2185.05	2174.37
6	Bulk density (gm/cc) (Yb= W2/v)	2.45	2.46
7	Moisture meter reading (%)	6.03	6.24
8	Dry density (g/cc) Yd = Yb /(1 + w/100)	2.31	2.31
9	Degree of compaction achieved, (%) (Yd/mdd)*100)	**98.2**	**98.5**
10	Required degree of compaction, (%) ,As per MORT&H 5th specification.	**98.35**	

Remarks: Results found Satisfactory

Consultant: Transheight Consultants Pvt. Ltd.	Client : BBMP
Authorised Signatory	Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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FIELD DENSITY BY SAND REPLACEMENT METHOD

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Description of materials:	GSB-V	Date of testing: 10.08.2021	
Lab.MDD (gm/cc)	2.320	Lab.OMC(%)	4.5
Bulk Density of sand	1.385	Sand retained in cone (gm)=W1	848

FIELD DENSITY BY SAND REPLACEMENT METHOD

SL.no	Particulars	S-1	S-2
1	Wt of Wet GSB from hole (w2) gm:	5368.5	5368.5
2	Wt of sand + cylinder before pouring(gm) (w3)	15000.00	15000.00
3	Wt of sand+ cylinder after pouring (gm)(w4)	11010.36	11032.70
4	Wt of sand in hole (gm)(w5= w3-w4-w1)	3141.64	3119.30
5	Volume of sand in hole (V = W5/Ysand)	2268.33	2252.20
6	Bulk density (gm/cc) (Yb= W2/v)	2.367	2.384
7	Moisture meter reading (%)	4.00	4.50
8	Dry density (g/cc) Yd = Yb /(1 + w/100)	2.276	2.281
9	Degree of compaction achieved, (%) (Yd/mdd)*100)	98.09	98.32
10	Required degree of compaction, (%) ,As per MORT&H 5th specification.	98.00	

REMARKS: Found to be Satisfactory.

Consultant: Transheight Consultants Pvt. Ltd.	Client : BBMP
Transheight Consultants Pvt. Ltd. Bangalore Authorised Signatory	Authorised Signatory Assistant Executive Engineer Kodigehalli Sub Division BBMP, Bangalore

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Calibration for bulk density of Sand

1	Weight of sand pouring cylinder and full sand = W_1, g (to be maintained same every time)	15000	15000	15000
2	Weight of sand in cone, W_2, g	848	852	846
3	Volume of calibrating container = V_a, cm^3	3534.75	3534.75	3534.75
4	Wt. of cylinder and sand after filling calibrating container = W_3, g	10945.30	10963.44	10946.84
5	Wt. of sand filling calibrating container = W_a (W1– W2-W3), g	4902.70	4888.56	4899.16
6	Bulk density of sand, $\gamma_s = \frac{Wa}{va}$ gm/cm3	1.387	1.383	1.386
7	Avg value γS, (gm/cm3)		**1.385**	

Remarks: Results found satisfactory

Consultant: Transheight Consultants Pvt. Ltd. | **Client : BBMP**

Transheight Consultants Pvt. Ltd. Bangalore

Authorised Signatory

Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

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Test Result on Stability of Mix

IS: 1201 &1220 (1978) (Reaffirmed-2004) — **Date: 09.08.2021**

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Date of Reciept	08.08.2021
Sample Type	Bitumen
Date of Test	09.08.2021

Test Results of the test conducted on the Bituminos Concrete (BC) mix sample are as follow

Sl. No	Name of Test	Test-1	Test-2	Specified limit as per MORTH specification table 500-11
1	Marshall Stability at 60□C	15.36	15.99	10 KN (Minimum)
2	Marshal flow at 60□C	2.9	3.1	2-4
3	Percentage air Voids	5.1	5.03	3-6
4	Percent Voids in mineral Aggregate (VMA %)	14.28	14.26	13-15
5	Percent Voids in mineral Bitumen (VFB %)	71.35	73.64	65-75
5	Density, g/cc	2.46	2.50	-

Remarks : Satisfactory

Transheight Consultants Pvt. Ltd. Bangalore

PMC

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

Client

Contractor

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Test Report on Bitumen

IS: 1201-1220 (1978) (Reaffirmed-2004) — **Date: 09.08.2021**

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Source of Sample	Sample supplied by Agency
Date of Reciept	08.08.2021
Sample Type	Bitumen (VG-30)
Date of Test	09.08.2021

Test Results

Sl. No	Name of Test	Result	Requirements as per IS: 73-2013
1	Penetration at 25°C, 1/10th mm	66	60 to 70
2	Softening Point, □C	51	Min. 47□C
3	Ductility, cm	52	Min. 40cm
4	Viscocity Test,Poise(Min)	2752	Range 2400-3600
5	Flash Point,□C	232	Min. 220□C

Remarks : Satisfactory

Transheight Consultants Pvt. Ltd. Bangalore

PMC Client Contractor

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

#1192,'A'Block,3rdCross, 5th Main,
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Test Reults of Gradation for Bituminous Concrete (BC)

IS 2386 (Part-1) 1963 (Reaffirmed-2007) — **Date: 09.08.2021**

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Sample Condition	Satisfactory
Date of Reciept	08.08.2021
Type of Mix	Bituminous Concrete (BC)
Date of Test	09.08.2021
Total wt of the sample (gms):	5000

IS Sieve size (mm)	Weight retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specifcations as per MORTH (Table 500-17) (Grading-II)	Remarks
19	0	0	0.0	100	100	Satisfactory
13.2	176	176	3.5	96.5	90-100	Satisfactory
9.5	664	840	16.8	83.2	70-88	Satisfactory
4.75	1123	1963	39.3	60.7	53-71	Satisfactory
2.36	488	2451	49.0	51.0	42-56	Satisfactory
1.18	331	2782	55.6	44.4	34-48	Satisfactory
0.6	233	3015	60.3	39.7	26-38	Satisfactory
0.3	592	3607	72.1	27.9	18-28	Satisfactory
0.15	445	4052	81.0	19.0	12-20	Satisfactory
0.075	466	4518	90.4	9.6	4-10	Satisfactory
PAN	482	5000	100.0	0.0	0	Satisfactory

Remarks: Satisfactory

Transheight Consultants Pvt. Ltd. Bangalore

PMC **Client** **Contractor**

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

#1192, A Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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Physical Requirements for Coarse Aggregate for Bituminous Concrete

IS: 2386 Part-I, III & IV — **Date: 09.08.2021**

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Byatarayanapura, Bengaluru.
Consultant	Transheight Consultants Private Limited
Contractor	B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20
Sample Condition	Satisfactory
Date of Reciept	08.08.2021
Sample Type	Bituminous Concrete (BC)
Date of Test	09.08.2021

Table 500-16 : Physical Requirements of Coarse Aggregate for Bituminous Concrete (BC)

Peperty	Test	Result	Specification	Method of Test
Partial Shape	Flakiness Index	21.25	Combination Flakiness & Elongation Index for BC is Maximum 35%	IS: 2386 Part-I
	Elongation Index	13.75		
Strength	Aggregate Impact Value	21.56	Maximum 24%	IS: 2386 Part-IV
Specific Gravity	Specific Gravity	2.45	Maximum 2.7	IS: 2386 Part-III
Water Absorption	Water Absorption	1.52%	Maximum 2%	IS: 2386 Part-III

Remarks : Results are Satisfactory

Transheight Consultants Pvt. Ltd. Bangalore
PMC

Client

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

Contractor

#1192,'A'Block,3rdCross, 5th Main,
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Test Report of Steel

Name of Project: Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Amruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07. 2) Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number – 08 3) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhu and surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in Muthuraya Swamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in Kuvempu Nagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.

IS: 1786-2008, IS: 1608-2005 (Reaffirmed-2011), IS: 1599-2012 | **Date: 16.08.2021**

Client	Bruhat Bengalore Mahanagara Palike (BBMP), Bengaluru.
Contractor	Sri. B.B umesh
Consultant	Transheight Consultants Private Limited
Customer Reference	EE/PC/11/WO/01/2019-20
Sample Condition	Satisfactory
Date of Reciept	15.08.2021
Sample Type	Mahrishi (Fe 550)
Date of Test	16.08.2021

Sl No.	Identification of Sample	Grade of the Sample	Diameter of the Steel Bar	Weight of the Sample	Yield Stress	Tensile Strength	Elongation	Bend Test	Rebend Test
			mm	kg/m	N/mm^2	N/mm^2	%		
1	Mahrishi (Fe 550)	Fe500	8.0	0.391	512	652	20	Satisfactory	Satisfactory
2	Mahrishi (Fe 550)	Fe500	10.0	0.616	528	672	20	Satisfactory	Satisfactory
3	Mahrishi (Fe 550)	Fe500	12.0	0.888	544	668	20	Satisfactory	Satisfactory

Result: Satisfactory

Transheight Consultants Pvt. Ltd. Bangalore PMC

Contractor

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | **Date: 07.09.2021**

Name of Project: Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Amruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07. 2) Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number – 08 3) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhu and surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in Muthuraya Swamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in Kuvempu Nagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	31.8.2021
Sample Type	C.C Road
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M30/ 7 Days Compressive Strength
Date of Test	7.09.2021

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	C.C Road	M30	31.8.2021	7.09.2021	150x150x150	22500	8.95	470.18	20.9	20.70
2	C.C Road	M30	31.8.2021	7.09.2021	150x150x150	22500	9.10	468.29	20.8	
3	C.C Road	M30	31.8.2021	7.09.2021	150x150x150	22500	9.16	458.46	20.4	

Remarks : Results found satisfactory

Consultant: Transheight Consultants Pvt. Ltd. | **Client : BBMP**

Transheight Consultants Pvt. Ltd. Bangalore

Authorised Signatory

Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | **Date: 28.09.2021**

Name of Project:	Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Kuruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07. 2) Improvements to Roads and drains at Bhadrappa layout and balaji layout and surrounding area in ward number – 08 3) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhu and surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in Muthuraya Swamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in Kuvempu Nagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.
Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	31.8.2021
Sample Type	C.C Road
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M30/ 28 Days Compressive Strength
Date of Test	28.09.2021

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm²	N/mm²
1	C.C Road	M30	31.8.2021	28.09.2021	150x150x150	22500	8.95	471.25	20.9	20.94
2	C.C Road	M30	31.8.2021	28.09.2021	150x150x150	22500	9.10	470.54	20.9	
3	C.C Road	M30	31.8.2021	28.09.2021	150x150x150	22500	9.16	471.69	21.0	

Remarks : Results found satisfactory

Consultant: Transheight Consultants Pvt. Ltd.

Transheight Consultants Pvt. Ltd. Bangalore

Authorised Signatory

Client : BBMP

Authorised Signatory
Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | **Date: 08.09.2021**

Name of Project: Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Amruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07. 2) Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number – 08 3) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhu and surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in Muthuraya Swamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in Kuvempu Nagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	01.09.2021
Sample Type	C.C Road
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M30/ 7 Days Compressive Strength
Date of Test	08.09.2021

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	C.C Road	M30	01.09.2021	08.09.2021	150x150x150	22500	8.95	472.56	21.0	20.92
2	C.C Road	M30	01.09.2021	08.09.2021	150x150x150	22500	9.10	469.58	20.9	
3	C.C Road	M30	01.09.2021	08.09.2021	150x150x150	22500	9.16	470.25	20.9	

Remarks : Results found satisfactory

Consultant: Transheight Consultants Pvt. Ltd.	Client : BBMP
Transheight Consultants Pvt. Ltd. Bangalore Authorised Signatory	Authorised Signatory Assistant Executive Engineer Kodigehalli Sub Division BBMP, Bangalore

#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | **Date: 29.09.2021**

Name of Project: Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Amruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07. 2) Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number – 08 3) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhu and surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in Muthuraya Swamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in Kuvempu Nagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	01.09.2021
Sample Type	C.C Road
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M30/ 28 Days Compressive Strength
Date of Test	29.09.2021

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	C.C Road	M30	01.09.2021	29.09.2021	150x150x150	22500	8.95	472.56	21.0	20.92
2	C.C Road	M30	01.09.2021	29.09.2021	150x150x150	22500	9.10	469.58	20.9	
3	C.C Road	M30	01.09.2021	29.09.2021	150x150x150	22500	9.16	470.25	20.9	

Remarks : Results found satisfactory

Consultant: Transheight Consultants Pvt. Ltd.

Transheight Consultants Pvt. Ltd. Bangalore

Authorised Signatory

Client : BBMP

Authorised Signatory
Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | **Date: 25.08.2021**

Name of Project: Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Amruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07. 2) Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number – 08 3) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhu and surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in Muthuraya Swamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in Kuvempu Nagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019
Sample Condition	Satisfactory
Date of Reciept	18.08.2021
Sample Type	RCC Drain-Wall
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M20/ 7 Days Compressive Strength
Date of Test	25.08.2021

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	RCC Drain-Wall	M20	18.08.2021	25.08.2021	150x150x150	22500	8.3	310.56	13.8	13.66
2	RCC Drain-Wall	M20	18.08.2021	25.08.2021	150x150x150	22500	8.4	308.3	13.7	
3	RCC Drain-Wall	M20	18.08.2021	25.08.2021	150x150x150	22500	8.5	303.3	13.5	

Remarks :

Consultant: Transheight Consultants Pvt. Ltd.	Client : BBMP
Authorised Signatory	Authorised Signatory

Transheight Consultants Pvt. Ltd. Bangalore

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | **Date: 15.09.2021**

Name of Project: Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Amruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07. 2) Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number – 08 3) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhu and surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in Muthuraya Swamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in Kuvempu Nagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri B.B Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019
Sample Condition	Satisfactory
Date of Reciept	18.08.2021
Sample Type	RCC Drain-Wall
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M20/ 28 Days Compressive Strength
Date of Test	15.09.2021

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	RCC Drain-Wall	M20	18.08.2021	15.09.2021	150x150x150	22500	8.4	467.1	20.8	20.96
2	RCC Drain-Wall	M20	18.08.2021	15.09.2021	150x150x150	22500	8.6	477.3	21.2	
3	RCC Drain-Wall	M20	18.08.2021	15.09.2021	150x150x150	22500	8.6	470.3	20.9	

Remarks :

Consultant: Transheight Consultants Pvt. Ltd.

Transheight Consultants Pvt. Ltd. Bangalore

Authorised Signatory

Client : BBMP

Authorised Signatory
Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) — **Date: 26.08.2021**

Name of Project: Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Amruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07. 2) Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number – 08 3) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhu and surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in Muthuraya Swamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in Kuvempu Nagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri B.B.Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019
Source of Sample	Sample supplied by Agency
Sample Condition	Satisfactory
Date of Reciept	19.08.2021
Sample Type	RCC Drain-Wall
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M20/ 7 Days Compressive Strength
Date of Test	26.08.2021

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm²	N/mm²
1	RCC Drain-Wall	M20	19.08.2021	26.08.2021	150x150x150	22500	8.3	365.35	16.2	16.49
2	RCC Drain-Wall	M20	19.08.2021	26.08.2021	150x150x150	22500	8.5	375.5	16.7	
3	RCC Drain-Wall	M20	19.08.2021	26.08.2021	150x150x150	22500	8.5	372.6	16.6	

Remarks : Results found Satisfactory

Consultant: Transheight Consultants Pvt. Ltd.

Transheight Consultants Pvt. Ltd. Bangalore

Authorised Signatory

Client : BBMP

Authorised Signatory

Assistant Executive Engineer
Kodigehalli Sub Division
Bangalore

#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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Test Report of Cement Concrete Cubes

IS: 516-1959 (Method of tests for strength of Concrete C1.5) | **Date:** 15.09.2021

Name of Project: Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Amruthahalli main road, Kariyanna layout and surrounding areas in ward no. 07. 2) Improvements to Roads and drains at bhadrappa layout and balaji layout and surrounding area in ward number – 08 3) Improvements to roads and drains in Kodigehalli colony, Maruthinagara, BB Nagar and surrounding area in ward no. 08 4) Improvements to Roads and Drains in BEL Layout, HMT Layout, Rajivagandhi Nagar (NTI), Thindhu and surrounding in ward No. 09 5) Improvements to Roads and Drains in Thindlu colony, Narasipura layout, Kempegowdnagara and surrounding area in ward No. 09 6) Improvements to Roads and Drains in Muthuraya Swamy layout, Doddabomasandra, Nanjappa layout, Chamundeshwari Layout in Ward No. 10 7) Improvements to Roads and Drains in Kuvempu Nagara, Singapura, Ramachandrapura and surrounding areas in ward no-11.

Client	Bruhat Bengalore Mahanagara Palike (BBMP) , Yelahanka Zone, Bengaluru.
Contractor	Sri B.B.Umesh
Customer Reference	BBMP/EE/BTP/WO/110/2019-20 Dt: 17.10.2019
Sample Condition	Satisfactory
Date of Reciept	19.08.2021
Sample Type	RCC Drain-Wall
Sample Type/Size	150x150x150 mm
Sample Grade/ Age	M20/ 28 Days Compressive Strength
Date of Test	15.092021

Sl No.	Identification Mark	Grade of Concrete	Date of Casting	Date of Testing	Dimension of Specification	Cross sectional area	Weight of the sample	Failure Load	Compressive Strength	Average Compressive Strength
					mm	Sq.mm	kg	KN	N/mm^2	N/mm^2
1	RCC Drain-Wall	M20	19.08.2021	15.092021	150x150x150	22500	8.39	455.95	20.3	20.46
2	RCC Drain-Wall	M20	19.08.2021	15.092021	150x150x150	22500	8.54	466.1	20.7	
3	RCC Drain-Wall	M20	19.08.2021	15.092021	150x150x150	22500	8.60	459.15	20.4	

Remarks : Results found Satisfactory

Consultant: Transheight Consultants Pvt. Ltd.

Transheight Consultants Pvt. Ltd. Bangalore

Authorised Signatory

Client : BBMP

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

#1192,'A'Block,3rdCross, 5th Main,
Sahakarnagar,Bangalore-560092

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